

a support portion formed around the lower surface of the display part in the housing, and supporting an end of each of the piezoelectric beam vibrators.

40. The haptic display apparatus as set forth in claim **39**, wherein one end of each of the piezoelectric beam vibrators is fixedly supported by the support portion, and the other end is connected to each of the edges of the display part.

41. The haptic display apparatus as set forth in claim **39**, wherein both ends of each of the piezoelectric beam vibrators are fixedly supported by the support portion, and a central portion thereof is connected to each of the edges of the display part.

42. The haptic display apparatus as set forth in claim **34**, wherein

a lower surface of each of the edges of the display part is spaced apart from an upper surface of each of the piezoelectric beam vibrators, and

the haptic display apparatus further comprising a connection member that is disposed in the space between the display part and the piezoelectric beam vibrator to transmit vertical vibration from the piezoelectric beam vibrator to the lower surface of the display part.

43. The haptic display apparatus as set forth in claim **39**, wherein each of the piezoelectric beam vibrators is disposed to be spaced apart from an inner surface of the housing.

44. The haptic display apparatus as set forth in claim **43**, wherein a vibrating position may be controlled from a portion having the vibrator to a central portion of the display part, by adjusting a frequency of voltage applied to the piezoelectric beam vibrator in a domain less than a primary resonant frequency of the display part.

45. The haptic display apparatus as set forth in claim **44**, wherein a frequency of voltage applied to the vibrator has a triangle wave.

46. The haptic display apparatus as set forth in claim **45**, wherein a symmetry ratio of the triangle wave is selected from

a shape having no frequency component that corresponds to the primary resonant frequency of the display part when a spectrum is analyzed.

47. A vibration panel having a plurality of excitation points, comprising:

a panel configured to input a command through touch and to sense vibration on an upper surface thereof; and

a plurality of vibrators disposed under the panel to excite each center of edges of the vibration panel.

48. The vibration panel as set forth in claim **47**, wherein each of the vibrators includes a piezoelectric beam vibrator.

49. The vibration panel as set forth in claim **48**, further comprising:

a housing supporting the edges of the panel and receiving the piezoelectric beam vibrator, the housing supporting one end or both ends of the piezoelectric beam vibrator.

50. The vibration panel as set forth in claim **48**, wherein the piezoelectric beam vibrator is disposed to be parallel to each of the edges.

51. The vibration panel as set forth in claim **49**, wherein the piezoelectric beam vibrator is disposed under the panel to be spaced apart from the panel, a lower surface of the display part being connected to an upper surface of the piezoelectric beam vibrator via a connection member to transmit vibration.

52. The vibration panel as set forth in claim **49**, wherein a side of the piezoelectric beam vibrator is disposed to be spaced apart from an inner surface of the housing.

53. A vibration panel having a plurality of excitation points, comprising:

a panel configured to input a command through touch and to sense vibration on an upper surface thereof; and

a plurality of vibrators disposed under the panel to excite corners of the vibration panel.

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